



HUGHES GROUP ARCHITECTS

22630 DAVIS DRIVE, SUITE 175  
STERLING, VIRGINIA 20164  
703.437.6600

CIVIL:  
ALPHA CORPORATION  
21351 Ridgeloop Circle, Suite 200  
Sterling, VA 20166  
(703) 450-0800

STRUCTURAL:  
EHLERT-BRYAN  
1451 Dolley Madison Blvd. Suite 220  
McLean, VA 22101  
(703) 827-9552

MECHANICAL/ELECTRICAL:  
BRINJAC ENGINEERING  
4000 Albermarle Street, NW  
Washington, DC 20016  
(202) 237-2750



PURCELLVILLE FIRE AND RESCUE

500 MAPLE AVE. BUILDING #  
PURCELLVILLE, VIRGINIA

DETAILS - FIRE ALARM

KEY PLAN

REVISIONS:

ISSUES:  
9-26-07 BID SET

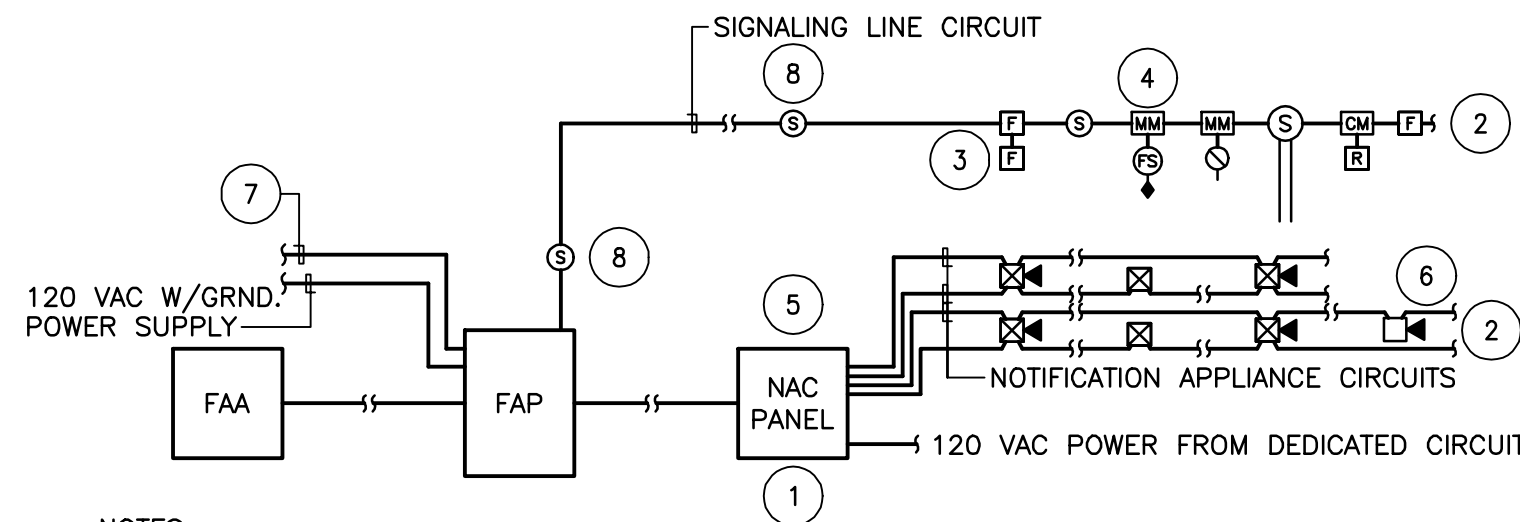
STAMP AND SEAL:

DATE: 09-26-07 SCALE: AS NOTED

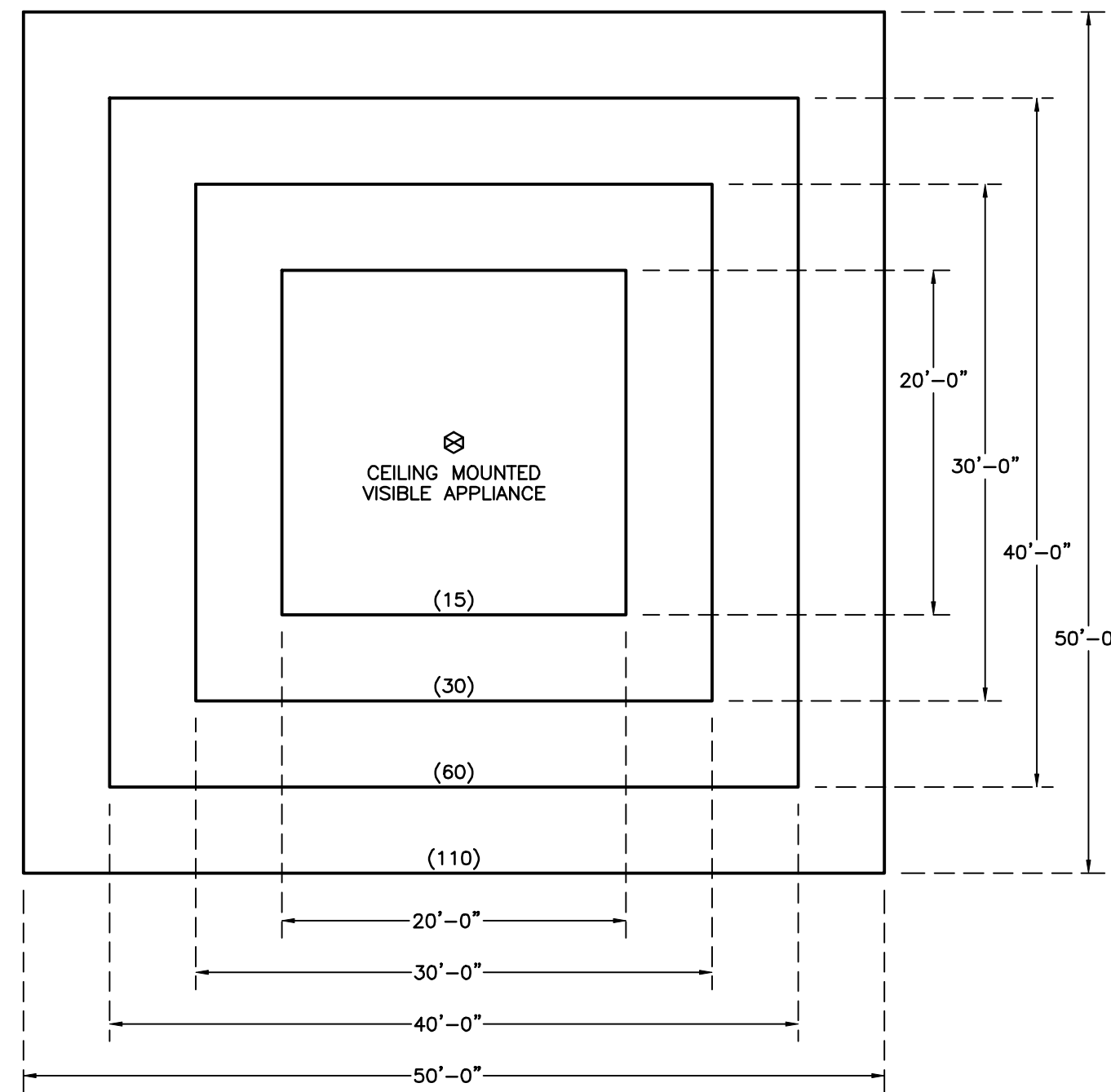
PROJECT NO. 0611

SHEET: FA-800

SYSTEM INPUTS		SYSTEM OUTPUTS															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1 ANY GENERAL BUILDING DETECTOR IN TROUBLE		X	X							X	X						1
2 ANY GENERAL BUILDING DETECTOR IN ALARM						X	X	X	X	X			X	X			2
3 ANY GENERAL BUILDING MANUAL PULL STATION IN ALARM						X	X	X	X		X		X	X			3
4 ANY DUCT DETECTOR IN ALARM						X	X	X	X		X	X	X				4
5 FIRE ALARM AC POWER FAILURE				X	X			X	X	X							5
6 FIRE ALARM SYSTEM LOW BATTERY		X	X					X	X	X							6
7 OPEN CIRCUIT		X	X					X	X	X							7
8 GROUND FAULT		X	X														8
9 NOTIFICATION APPLIANCE CIRCUIT SHORT		X	X					X	X	X							9
10 ANY TROUBLE ALARM		X	X					X	X	X							10
11 SMOKE DETECTOR ADJACENT TO DOOR HOLD-OPEN DEVICE IN ALARM						X	X	X	X	X		X	X	X			11
12 KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION						X	X	X	X	X		X					12
13 ANY TAMPER SWITCH				X	X			X	X	X		X					13
14 ANY GENERAL BUILDING WATERFLOW ALARM						X	X	X	X	X		X					14
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	



- NOTES:
- THE TYPE OF DEVICE AT THIS LOCATION WILL DEPEND ON THE MANUFACTURER'S EQUIPMENT. NOTHING IN THE DESIGN DOCUMENTS IS INTENDED, NOR SHOULD IT BE CONSTRUED, TO LIMIT THE TYPES OF DEVICES THAT MAY BE USED, PROVIDED THE INTENDED SYSTEM PERFORMANCE IS ACHIEVED AND WITHIN THE UL LISTING.
  - THE DEVICES SHOWN ON THE RISER DIAGRAM ARE REPRESENTATIVE OF THOSE TO BE PROVIDED THROUGHOUT THE BUILDING. THEY ARE NOT INTENDED TO SHOW TOTAL QUANTITIES OF DEVICES. THE CONTRACTOR SHALL REFER TO THE FLOOR PLANS FOR THIS INFORMATION.
  - THE SIGNALING LINE CIRCUIT MAY BE T-TAPPED, PROVIDED THE LOCATION OF THE T-TAP IS CLEARLY SHOWN ON THE SHOP DRAWINGS. IS PERFORMED IN A JUNCTION BOX, AND IS MADE WITH A TERMINAL STRIP. PIG TAILING IS NOT PERMITTED.
  - ADDRESSABLE INTERFACE MODULES ARE REQUIRED FOR NON-ADDRESSABLE INITIATING AND INDICATING DEVICES FOR CONNECTION TO THE FIRE ALARM SYSTEM. SEE THE WIRING SCHEMATICS ON THIS DRAWING FOR ADDITIONAL INFORMATION.
  - PROVIDE REMOTE NOTIFICATION APPLIANCE CIRCUIT POWER BOOSTER PANELS AS REQUIRED.
  - AUDIBLE AND VISIBLE NOTIFICATION APPLIANCES SHALL BE WIRED SEPARATELY OR SEPARATELY CONTROLLED.
  - THE LOCATION AND TYPE OF INTERFACE DEVICE FOR CONNECTION TO THE MONITORING SERVICE MUST BE COORDINATED WITH CONTRACTING SERVICE COMPANY.
  - PROVIDE A SMOKE DETECTOR ABOVE ALL CONTROL PANELS (TYPICAL).



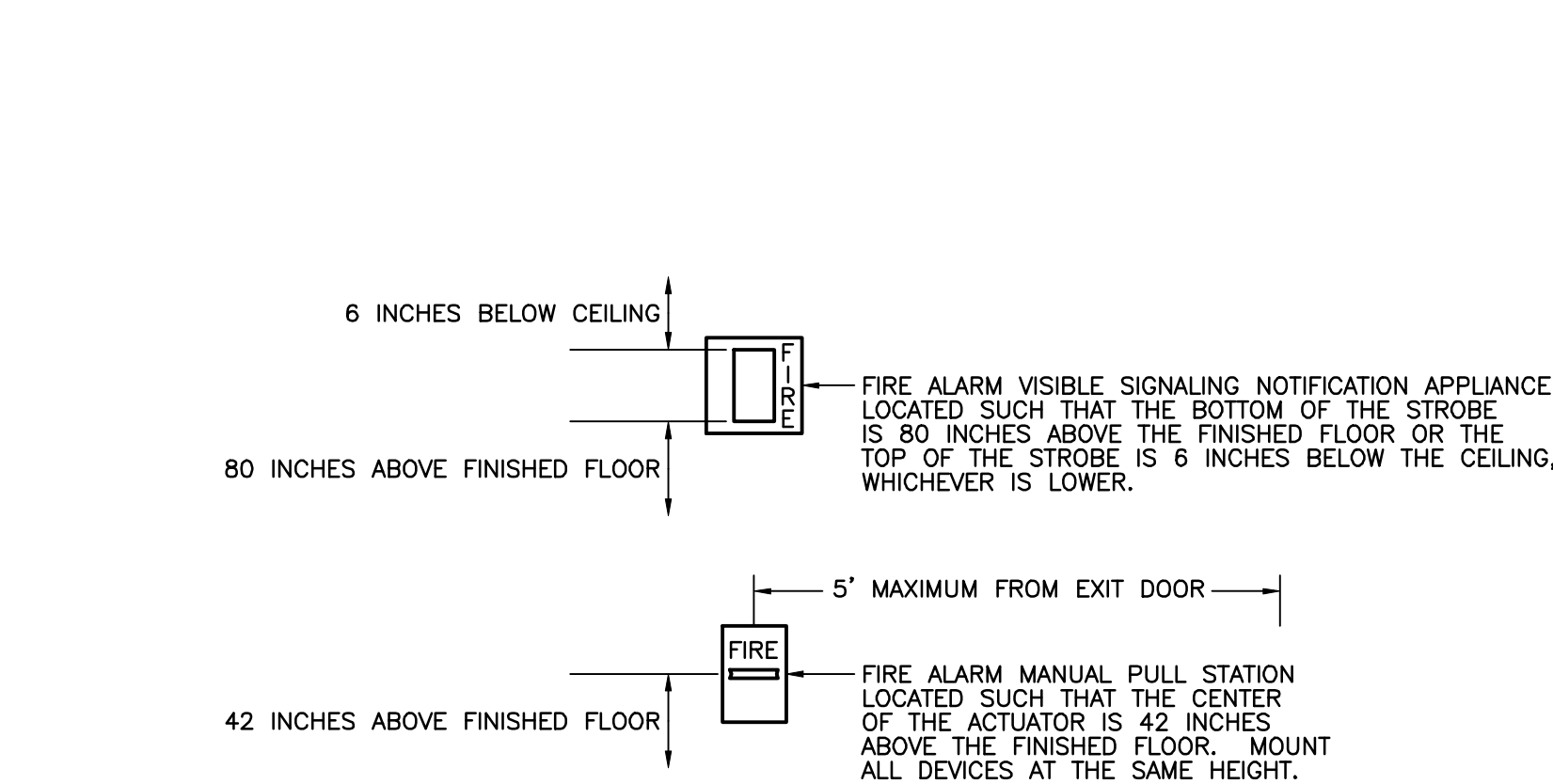
NOTES:

1. CANDELA RATINGS SHOWN ABOVE ARE FOR 10' OR LESS CEILINGS. SEE CHART BELOW FOR HIGHER CEILINGS.

ROOM SIZE	≤ 10' CEILINGS	≤ 20' CEILINGS	≤ 30' CEILINGS
20 x 20	15 cd	30 cd	60 cd
30 x 30	30 cd	60 cd	75 cd
40 x 40	60 cd	110 cd	115 cd
50 x 50	110 cd	115 cd	177 cd

## 1 FIRE ALARM SYSTEM MATRIX OF OPERATION

FA-800 NO SCALE

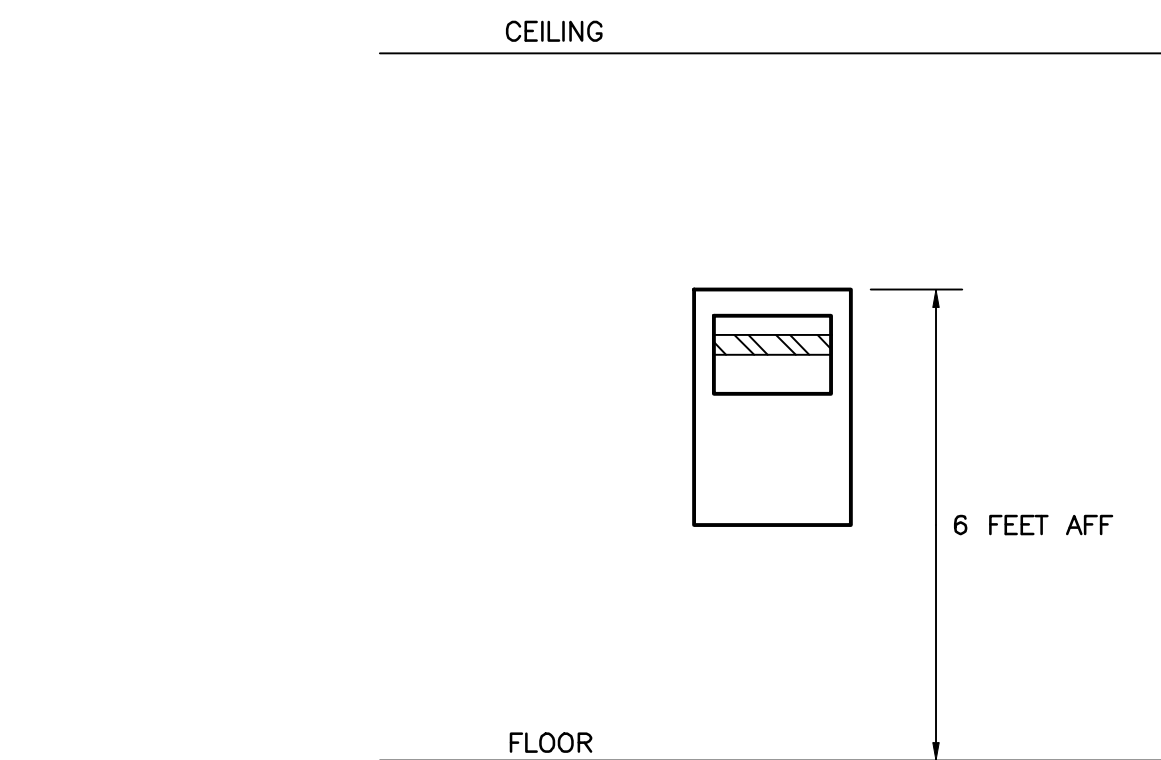


DETAIL NOTES:

- WHERE FLOOR PLAN INDICATES THAT NOTIFICATION APPLIANCE AND MANUAL PULL STATION ARE LOCATED IN THE SAME AREA, THEY SHALL BE MOUNTED IN THE SAME VERTICAL LINE.

## 4 MANUAL PULL STATION AND STROBE MOUNTING DETAIL

FA-800 NO SCALE

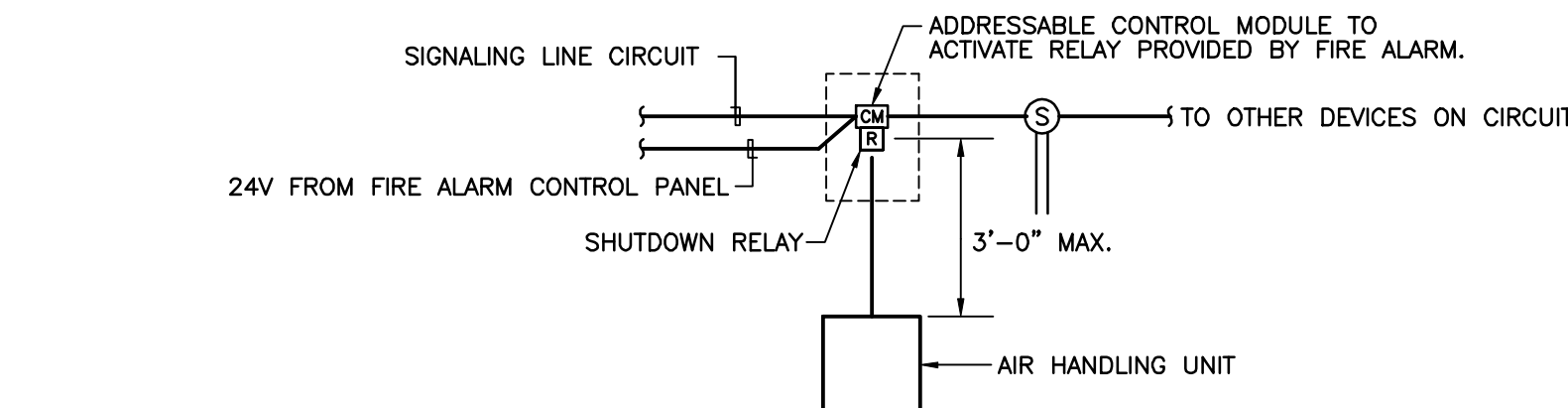


DETAIL NOTES:

- FOR BLOCK WALLS - COORDINATE MOUNTING HEIGHT WITH TOP COURSE OF BLOCK NEAREST 6 FEET AFF.

## 5 FIRE ALARM PANEL/ANNUNCIATOR MOUNTING DETAIL

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DETAIL NOTES:

- ACTIVATION OF DUCT DETECTOR SHALL CAUSE SHUT DOWN RELAY TO BE ACTIVATED.
- DUCT SMOKE DETECTOR PROVIDED BY THE FIRE ALARM CONTRACTOR AND INSTALLED BY OTHERS. ALL CONNECTIONS, POWER SUPPLY, AND RELAY SHALL BE BY THE FIRE ALARM CONTRACTOR.
- THE ARRANGEMENT SHOWN DOES NOT PROHIBIT THE USE OF A RELAY BASE DUCT DETECTOR AS LONG AS THE HVAC DEVICE SHUT DOWN IS ACCOMPLISHED WITHIN 3 FEET OF THE RELAY.
- ALL CONNECTIONS SHALL BE BY THE FIRE ALARM CONTRACTOR.

## 6 FIRE ALARM HVAC SHUT DOWN INTERFACE - ADDRESSABLE PANEL

FA-800 NO SCALE

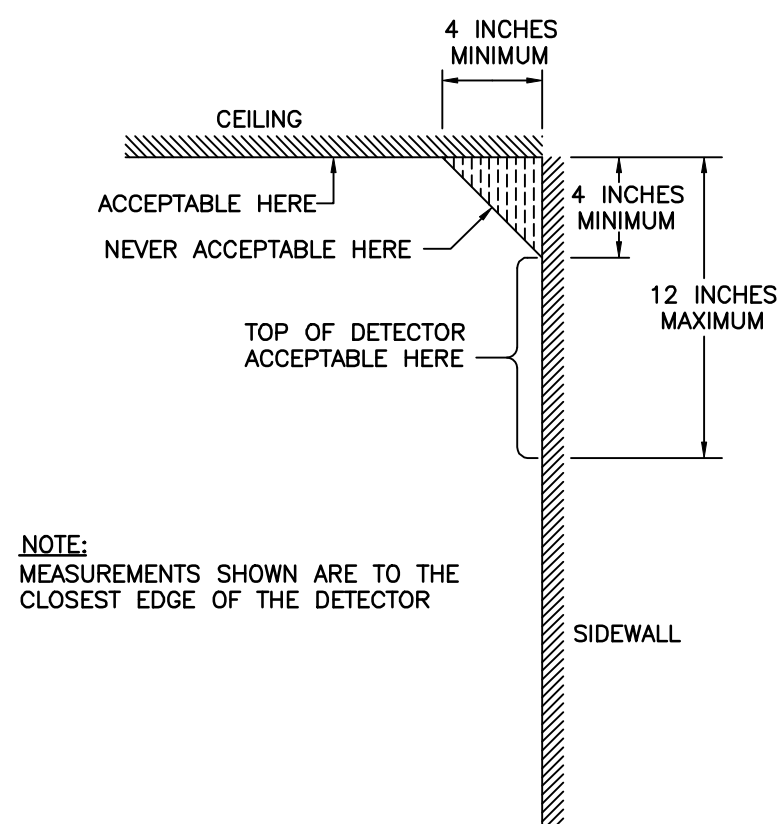
HVAC SHUTDOWN INTERFACE SCHEDULE			
HVAC EQUIPMENT NUMBER	# DUCT DETECTORS	HVAC SHUT DOWN PROVIDED	DETECTION PROVIDED AT SUPPLY, RETURN, BOTH, OR AREA
RTU-1	2	YES	BOTH
ERU-1	2	YES	BOTH
ERU-2	1	YES	SUPPLY

DETAIL NOTES:

- PROVIDE DUCT DETECTORS. SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS.
- PROVIDE CONTROL MODULE, SHUT DOWN RELAY, AND WIRING AS SHOWN IN THE FIRE ALARM HVAC SHUT DOWN INTERFACE DETAIL AND IN THE SPECIFICATIONS. LOCATE RELAY WITHIN 3 FEET OF THE EMERGENCY CONTROL DEVICE. FIRE ALARM DRAWINGS SHOW APPROXIMATE LOCATION. COORDINATE FINAL LOCATION WITH THE MECHANICAL CONTRACTOR.

## 7 HVAC SHUT DOWN INTERFACE SCHEDULE

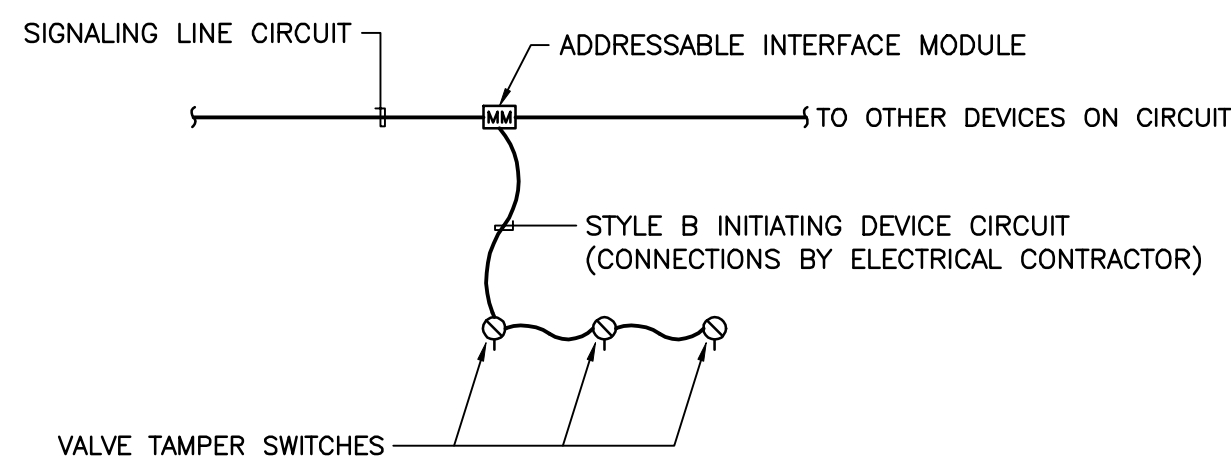
FA-800 NO SCALE



NOTE: MEASUREMENTS SHOWN ARE TO THE CLOSEST EDGE OF THE DETECTOR

## 8 PROPER PLACEMENT FOR DETECTORS DETAIL

FA-800 NO SCALE

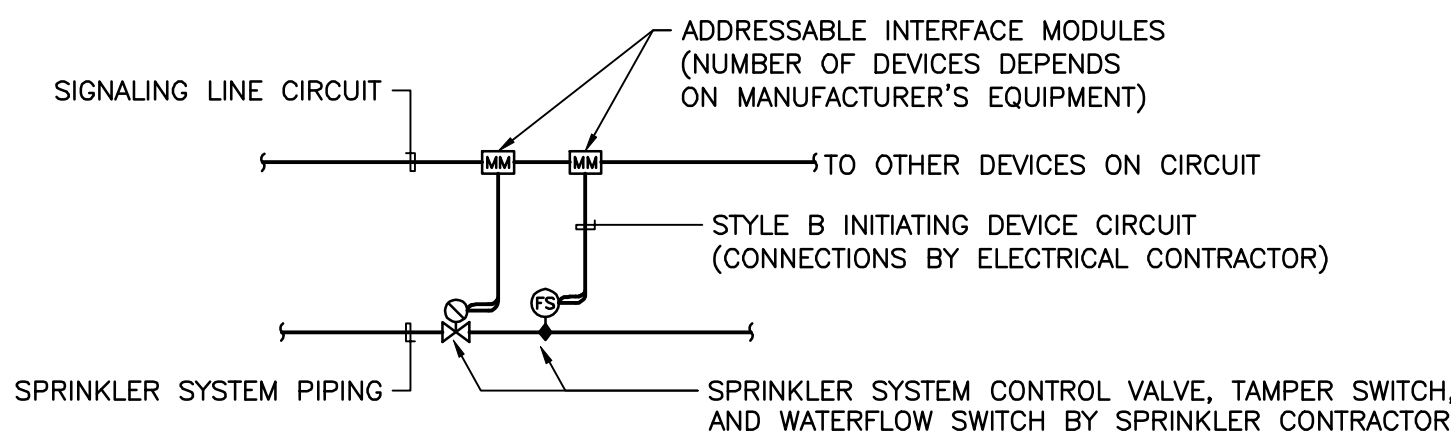


DETAIL NOTES:

- FOLLOW MANUFACTURER'S INSTRUCTIONS FOR CONNECTION OF MULTIPLE DEVICES TO A SINGLE MONITOR MODULE.
- A MAXIMUM OF 3 TAMPER SWITCHES MAY BE CONNECTED TO A SINGLE MONITOR MODULE WHEN SERVING THE SAME FUNCTION AND LOCATED IN THE SAME ROOM.

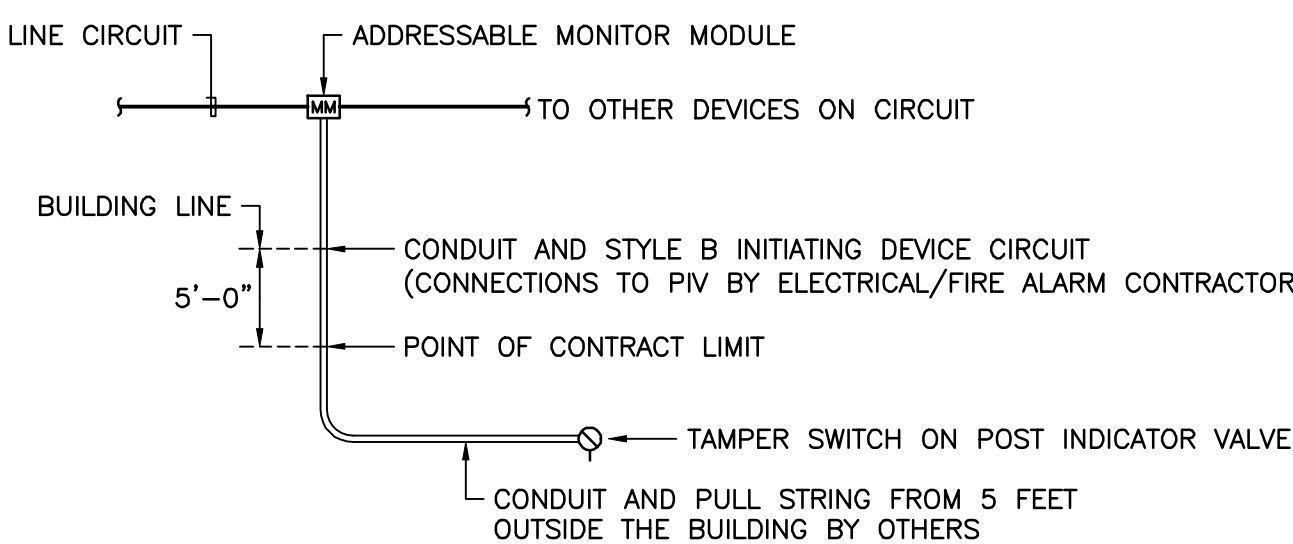
## 9 FIRE ALARM TAMPER SWITCH INTERFACE

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## 10 FIRE ALARM - SPRINKLER SYSTEM INTERFACE

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DETAIL NOTES:

- POST INDICATOR VALVE PROVIDED BY OTHERS.
- TAMPER SWITCH PROVIDED BY FIRE PROTECTION CONTRACTOR.
- CONDUIT WITH PULL STRING FROM 5 FEET OUTSIDE OF THE BUILDING TO THE TAMPER SWITCH PROVIDED BY OTHERS.
- CONDUIT FROM 5 FEET OUTSIDE THE BUILDING TO THE MONITOR MODULE BY ELECTRICAL/FIRE ALARM CONTRACTOR.
- MONITOR MODULE PROVIDED BY ELECTRICAL/FIRE ALARM CONTRACTOR.
- WIRING FROM MONITOR MODULE TO TAMPER SWITCH AND FINAL CONNECTIONS PROVIDED BY THE ELECTRICAL/FIRE ALARM CONTRACTOR.

## 11 FIRE ALARM POST INDICATOR VALVE INTERFACE

FA-800 NO SCALE

BID SET